





Illustration: Reuther/EHP

# Environmental and Public Health: Pulling the Pieces TOGETHER

In years past, planners, architects, and landscapers—for instance, Frederick Law Olmsted, who designed New York City's Central Park in 1857—put into practice the notion that a clean, hospitable recreational area would enhance public health by offering people a place to walk and engage in other forms of physical activity. The scientific data buttressing the link between the environment and public health weren't yet developed; it was something that Olmsted and others seemed to see intuitively.

But over the years, as the fields of public health, environmental protection, city planning, and land development have become increasingly specialized, the connection between the environment and public health has become fractured. According to Samuel

Wilson, deputy director of the NIEHS, environmental health is not always appropriately addressed in the broader public health enterprise. "Health features secondary to environmental exposures are not being given the priority needed," he says. "The priority is more on infectious disease, health care delivery, occupational health." Adds William Dietz, director of the Division of Nutrition and Physical Activity at the Centers for Disease Control and Prevention (CDC) in Atlanta, Georgia, "What we now see is a need to connect public health to the physical environment in a way that it was connected 100 years ago."

A 20–21 June 2000 workshop at the Institute of Medicine in Washington, D.C., titled "Rebuilding the Unity of Health and the Environment: A New Vision of

Environmental Health for the 21st Century" brought together environmental and public health professionals, as well as representatives from other groups and professions that have traditionally been left out each other's decision-making processes. The thrust of the workshop was that environmental factors that affect health—for example, waste disposal, urban sprawl and congestion, housing conditions, nutrition, and environment-related stress—must be considered when public health policy decisions are being made. "The world of public health has a lot of the health expertise and data, but not much environmental expertise," says Lynn Goldman, a visiting scholar at the Johns Hopkins School of Public Health and chair of the June workshop. "The environment has been taken out of public health and put into environmental

agencies, and environmental agencies have lost touch with health.”

The concept of an expanded, enhanced, more integrative vision of environmental health was a major theme of the workshop. In one workshop session Wilson stated,

that concentrating solely on a narrow interest—for instance, reduction of health risk from exposure to contaminants—may result in failure to recognize the implications of the bigger picture—for instance, that a park built on a brownfield is a great community

workshop presenter Robert Bullard, director of the Environmental Justice Resource Center at Clark Atlanta University. “Transportation goes to the heart of quality of life,” he said. But transportation benefits and burdens are not randomly distributed across population groups, he says. “The impacts of transportation are especially significant to people of color, who are more likely than whites to live in urban areas with reduced air quality,” he said at the workshop. Furthermore, when transportation policies and city designs are being laid out, says Bullard, “very few public health people are in the room. Public health perspectives are left off the table. It’s time [these perspectives] were reintegrated.”

Dietz says this lack of integration of the physical environment and public health is one of the reasons behind what he describes as an epidemic of obesity in the United States. Dietz and colleagues reported in the 27 October 1999 issue of the *Journal of the American Medical Association* that the prevalence of obesity has increased by about 50% over the past decade, from 12% in 1991 to 17.9% in 1998. The way most cities are built makes physical activity as part of a person’s daily routine almost impossible, he says. He notes that planners generally fail to consider the need for exercise in their urban designs. For instance, he says, many schools are on the edges of a community, and only one-third of children live within a mile of their school, so walking there is not a real possibility. Robert Yaro, executive director of the Regional Planning Association, a New York City-based independent regional planning organization, says that many new suburbs



What we now see is a need to connect public health to the physical environment in a way that it was connected 100 years ago.

—William Dietz, Centers for Disease Control and Prevention

“Only by thinking about environmental health on multiple levels will it be possible to merge our strategies to protect environment and health into strategies for continued economic development and growth of communities. In this approach, we will need to integrate environmental health with pressing social issues, and we will need to be cognizant of changes in the global environment.”

Timothy Wirth, president of the United Nations Foundation and a workshop presenter, says that a series of environmental laws passed by Congress in the 1970s and 1980s represented a “political marriage of environmental protection and public health.” Still, many environmental and public health experts feel that, when it comes to setting policy, the two disciplines are simply talking past one another, unable to integrate information on improving people’s health and protecting the environment, with the result that serious problems are ignored.

### Fractured Decision Making

As various fields become more specialized, their priorities may also become more disparate. In the area of brownfields development, for instance, economic issues are often at odds with human health concerns. Michael Greenberg, a professor of urban studies and community health at Rutgers University in New Brunswick, New Jersey, says that public health specialists must not cut themselves off from what he regards as the vital social and economic importance of brownfields development. “A [redeveloped brownfields site] might entail a slight health risk,” he says, “but [public health specialists] don’t see that by rebuilding that site you could create a lot of jobs, which would improve the neighborhood, which would improve people’s health.” Greenberg argues

asset that could outweigh a small health risk from exposure to industrial contamination.

But some public health experts say their participation is not always welcome. Devon Payne-Sturges, the former Baltimore City assistant health commissioner for environmental health, says that when she tried to have her agency involved in brownfields development in Baltimore, she was rebuffed by city planners and excluded from decision making. She says, “We were told by people in planning [that] public health was the enemy” because it might prevent a development deal from being consummated. Now codirector of the Center for Public Health and Law at the Environmental Law Institute in Washington, D.C., Payne-Sturges says

The environment has been taken out of public health and put into environmental agencies, and environmental agencies have lost touch with health.

—Lynn Goldman, John Hopkins School of Public Health



she is interested in bringing the perspective of the entire community into the planning process, and trying to get planners to understand how a redeveloped brownfield would affect the health of people living in the area and the quality of the environment.

Transportation policy is another area where affected groups can be excluded, says

lack sidewalks, increasing the likelihood that people will drive rather than walk to where they are going because of safety concerns.

### What’s Not Known Can Hurt

Other authorities note that there is often a tendency among public health policy makers to ignore environmental data, thus leading

to a failure to link those data with public health problems. Although the air and water have gotten cleaner, says Paul Locke, deputy director of the Pew Environmental Commission, there is a lack of understanding of how environment affects public health. "We still can't measure how [environmental factors] translate into better public health," he says. He cites asthma as an

needed from the Department of the Environment. "It was a difficult situation but was finally resolved so that blood test information would be reported to local health departments," she says.

In Florida, the nonprofit Legal Environmental Assistance Foundation (LEAF), based in Tallahassee, has been working to link public health and environmental

between the health department and local community groups that had suffered an unusual number of respiratory ailments and cancers, possibly because of living near the local Escambia Treating Company and Agrico Chemical Company Superfund sites. Community members had also voiced concerns about immune disorders, thyroid problems, and elevated lead concentrations. A special wing in the clinic will provide primary health care, says Ruhl, and there is also an effort to ensure that long-term community health care needs will be met. "The beauty of this model is that the community is saying what its needs are," she adds. But more importantly, she says, it got the local health department to focus on environmental concerns.

In another collaborative effort, the CDC is working with the Regional Planning Association to design community environments that promote health. Yaro says the cooperation between these two apparently disparate organizations is quite novel, but it is an example of the attempt to link public health concerns with the environment. He talks of cooperating with the CDC in designing new communities in which there are sidewalks, bike paths, and hiking trails.

At both the policy-making level and the day-to-day community level, there is a pronounced and explicit effort to establish the link between public health and the environ-



Only by thinking about environmental health on multiple levels will it be possible to merge our strategies to protect environment and health into strategies for continued economic development and growth of communities.

—Samuel Wilson, NIEHS

example: "Asthma has been increasing since 1980," he says. "While everything has been getting cleaner, asthma has been getting worse."

Wilson agrees that environmental factors tend to be excluded from public health discussions regarding policy making and undertakings such as redevelopment projects and city planning. "[Environmentally related] diseases are not being given the attention necessary to prevent them and treat them," he says. "We don't have ways of knowing how many airborne contaminants are being consumed by the American public. The asthma epidemic is undoubtedly secondary to these airborne contaminants, yet we don't know what the level of exposure is," he concludes. Adds Locke, "In this country we probably know more about the levels of PCBs in fish in the Hudson River than we do about the contamination in your body."

### Some Successes

But things can change and have changed. Payne-Sturges says that in Maryland's program to prevent childhood lead poisoning, information on child blood lead concentrations went from the medical labs that conducted the analyses to the state's Department of the Environment rather than to the public health agencies with the capacity to use this information to mount public health programs and conduct surveillance. Nevertheless, she says, with substantial effort, she and her public health colleagues were able to successfully change the program and get the information they

concerns. Among LEAF's accomplishments, says president and founder Suzi Ruhl, is getting the Florida legislature to set up a community environmental program within the state health department to address health problems in contaminated areas, including

In this country we probably know more about the levels of PCBs in fish in the Hudson River than we do about the contamination in your body.

—Paul Locke, Pew Environmental Commission

tracking conditions such as birth defects and a cluster of rare childhood brain cancers. Moreover, the legislature set up an advisory board for the program made up of people of low income living in contaminated areas to guide the program. Ruhl says that dialogue between health care providers, researchers, and the community is important for keeping health care focused on what the needs of the community are.

Most recently, LEAF convinced the state legislature to set up a community environmental health clinic within the Escambia County Health Department, creating a partnership

ment, a link that designers and planners of earlier centuries capitalized upon intuitively. Today, there is an abundance of scientific information on both environmental protection and public health that was not available 100 years ago. The question is whether modern-day, scientifically grounded attempts to integrate environmental knowledge and public health concerns will succeed in bringing about improved public health and an improved environment.

Harvey Black